D 1 1/2 Act of 4005		Approved for use through 7/31/2003. OMB 0651 Trademark Office. U.S. DEPARTMENT OF COMMI	ERC
nder the Paperwork Reduction Act of 1995, no persons a	are required to respond to a collection or	Information Unless it displays a valid Olvib control flu	mbe
LITILITY	A44	121497 (07783-0172)	

Attorney Docket No.

S PATENT APPLICATION	First Inventor							
I TRANSMITTAL	HYBRID CERAMIC MATRIX COMPOSITE TURBINE BLADES FOR							
U.S	IMPROVED PROCESSIBILITY AND OF PERFORMANCE							
<u>S</u>	Title PERFORMANCE							
enly for new nonprovisional applications under 37 CFR 1.53(b))	Express Mail Label No. ER 636051195 US							
APPLICATION ELEMENTS  See MPEP chapter 600 concerning utility patent application contents.	Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450							
Fee Transmittal Form (e.g., PTO/SB/17)     (Submit an original and a duplicate for fee processing)     Applicant claims small entity status.     See 37 CFR 1.27.  3. Specification [Total Pages 21]	7. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)  8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)  a. Computer Readable Form (CRF)							
(preferred arrangement set forth below) - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention	b. Specification Sequence Listing on:  i. CD-ROM or CD-R (2 copies); or  ii. Paper  c. Statements verifying identity of above copies							
Brief Description of the Drawings (if filed)     Detailed Description	ACCOMPANYING APPLICATION PARTS							
Claim(s)     Abstract of the Disclosure	9. Assignment Papers (cover sheet & document(s))							
4. Drawing(s) (35 U.S.C. 113) [Total Sheets <u>5</u> ]	10. 37 CFR 3.73(b) Statement Power of Attorney (when there is an assignee)							
5. Oath or Declaration [Total Sheets 1]	11. English Translation Document (if applicable)							
a. Newly executed (original or copy)	12. Information Disclosure Statement (IDS)/PTO-1449  13. Preliminary Amendment  14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized)  15. Certified Copy of Priority Document(s) (if foreign priority is claimed)  16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.							
b. Copy from a prior application (37 CFR 1.63(d))  (for continuation/divisional with Box 18 completed)								
i. DELETION OF INVENTOR(S)  Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).								
6. Application Data Sheet. See 37 CFR 1.76	17. Other: Certificate of Express Mailing, NASA Declaration							
18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:  Continuation Divisional Continuation-in-part (CIP) of prior application No.:  Prior application information: Examiner Art Unit:  For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The Incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.								
<u></u>	ONDENCE ADDRESS							
Customer Number: 31450	OR Correspondence address below							
Name								
Address								
City	State Zip Code							
Country	Telephone Fax							
Name (Print/Type)   Jonathan P. Miller	Registration No. (Attorney Agent) 48,483							
Name (Print/Type) Jonathan P. Millen Signature Arrelt Mach	Date January 15, 2004							

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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		FEE TRANSMIT	TAI	Complete if Known						
			Application Number			-				
	23	for FY 2003	Filing Date			January 15, 2004				
	22763	Effective 01/01/2003. Patent fees are subject to a	First Named Inventor			CARPER et al.				
		Applicant at it		Exam	iner Na	ne	n/a			
	U.S.	Applicant claims small entity status. Se	ee 37 CFR 1.27	Group / Art Unit			n/a			
	, co	TOTAL AMOUNT OF PAYMENT (\$) 81	0							
==	_	METHOD OF PAYMENT (check all that a		Attorney Docket No.   121497 (07783-0172)						
	0	III THOU OF PATMENT (check all that a	ipply)				FEE C	ALCULATION (continued)		
		☐ Check ☐ Credit card ☐ Money ☐ Other	□ None	3. ADDITIONAL FEES						
		☑ Deposit Account:	- None	<u>Large</u>	Entity	Small E	ntity	·		
		Deposit 50-1059		Fee Code 1051	Fee (\$)	Fee Code 2051	Fee (\$) 65	Fee Description Fee Po	aid	
		Number Deposit		1052	50	2052	<b>2</b> 5	Surcharge - late filing fee or oath Surcharge - late provisional filing fee or cover sheet.	-	
	l	Account McNees Wallace & Nunck LLC	; ;	1053	130	1053	130	Non-English specification	$\dashv$	
	- 1	Name	1 1	1812	2,520	1812	2,520	For filing a request for reexamination		
	1	The Commissioner is authorized to: (check all that a ⊠ Charge fee(s) indicated below ☑ Credit any overp		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	7	
	- 1	Champ any additional ( )	ayments	1805	1.840	1805	1.840*	Population (18) 41		

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Requesting publication of SIR after

Extension for reply within first month

Extension for reply within third month

Extension for reply within fifth month

Filing a brief in support of an appeal

Extension for reply within second

Extension for reply within fourth

Examiner action

Notice of Appeal

Request for oral hearing

month

month

Charge any additional fee(s) during the pendency of this application

**FEE CALCULATION** 

Fee Description

Utility filing fee

Design filing fee

Plant filing fee

Charge fee(s) indicated below, except for the filing fee

to the above-identified deposit account

Small Entity

Fee

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BASIC FILING FEE

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Large Entity Small Entity						8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40	
Code	(\$)	Code	Fee (\$)	Fee Descr			1809	750	2809	375	Filing a submission after final rejection	
1202 1201	18 84	2202 2201	9 42		excess of 20 nt claims in e	xcess of 3	1810	750	2810	375	(37 CFR § 1.129(a)) For each additional invention to be	
1203	280	2203	140	Multiple de	pendent clain	n. if not paid		1			examined (37 CFR § 1.129(b))	
1204	84	2204	42	** Reissue	independent	claims over	1801	750	2801	375	Request for Continued Examination (RCE)	
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						Other fee (specify)						
**or number previously paid, if greater: For Reiscuss, one above						*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40						

SUBMITTED BY Complete (if applicable) Name (Print/Type) Jonathan P. Miller Registration No. Attorney/Agent) 48,483 Telephone 717-237-5358 Signature Date January 15, 2004

WRNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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## CERTIFICATE OF EXPRESS MAILING UNDER 37 C.F.R. 1.10

I hereby certify that the following documents are being deposited with the United States Postal Service Express Mail Post Office to Addressee service under 37 C.F.R. 1.10 on the date indicated below, Express Mail Label Number ER **636051195 US**, dated January 15, 2004 and addressed to:

Mail Stop PATENT APPLICATION Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

- 1. Return Acknowledgment Postcard
- 2. Utility Patent Application Cover Sheet
- 3. Fee Transmittal Form
- Patent Application (21 pages) 4.
- 5. Drawings (5 sheets)
- Declaration (1 copy of executed original, 1 pages) 6.
- 7. **Application Data Sheet**
- NASA Declaration (1 copy of executed original, 2 pages) 8.
- 9. Power of Attorney (1 copy of executed original, 4 pages)
- Assignment Recordation Form 10.
- Assignment (1 copy of executed original, 3 pages) 11.
- Information Disclosure Statement 12.
- 13. PTO/SB/08
- 14. References Cited (1 Foreign)

By: (Type signature) Lindsay Vican

Written Signature: Ludsay

Date: January 15, 2004